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REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1-12 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Brockett in view of the U.S. patent to Gerlach.

Claims 1-2, 4-5, 7, 10-11 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Brockett in view of one of the references including GB 067, U.S. patent to Schafer, U.S. patent to Keistman, and U.S. Patent to Moore,

Also, the disclosure is objected to and the claims are rejected under 35 U.S.C. 112.

In connection with the Examiner's formal objections and rejections, applicant has amended the specification to bring it in compliance with the requirements of the U.S. Patent Practice.

The original claims have been canceled and replaced with a new set of claims including claim 13, the broadest claim on file, and claims 14-22 which depend on it.

It is respectfully submitted that claim 13, the broadest claim on file, clearly and patentably distinguishes the present invention from the prior art applied by the Examiner against the original claims.

The primary reference, or the U.S. patent to Brockett, does not disclose a commutator of the motor as in the present invention, as admitted by the Examiner.

The U.S. patent to Gerlach does not disclose a central elongated recess in the laminations. According to this reference, the openings 3 in the segments 1 are elongated. However, they are not central and they do not extend transversely through the laminations and do not form an annular conduit, as can be seen clearly from Figure 3. Figure 5 of this reference shows insulating layers with openings 5, but it does not show segments like in Figure 2, as can be seen from column 4, lines 16-24.

It is therefore respectfully submitted that the patent to Gerlach does not teach the new features of the present invention as now defined in claim 13.

The GB '067 reference discloses a groove 5 which starts at a point on the underside of the bar just behind or nearer to the center of the commutator bar. The groove passes outwards lengthwise of the shaft in an arcuate path until

at the point midway between the outer end of the commutator and the armature end. This reference further discloses that the commutator bars are held together by means of vee rings 2, which fit into corresponding vee slots of the commutator bars, as explained on page 2, line 91, to page 3, line 9. Therefore, this reference does not show one central recess which extends transversely through the laminations and forms an annular conduit.

This reference also does not teach the new features of the present invention which are now defined in claim 13.

According to the patent to Schafer, the segments 11 have a transverse bore 22 and non-conducting sheets or plates 12 interposed between the adjacent major surfaces of the segments have a cutout 23, as shown in Figures 1-3 and explained in column 2, lines 15-52 of the specification. The patent to Schafer also does not disclose one central elongated recess which extends transversely through the laminations and forms an annular conduit.

This reference also does not teach the new features of the present invention as defined in claim 13.

The patent to Keistman discloses the commutator bars which are provided with openings 2, and their spacing, size and orientation are such as to

leave the bar roughly in the shape of a king-post type of bridge truss as shown in Figure 3, and explained in column 2, lines 21-32. The patent to Keistman does not disclose one central elongated recess which extends transversely through the laminations and forms an annular conduit.

The patent to Keistman also does not teach the new features of the present invention as defined in claim 13.

Finally, the patent to Moore discloses commutator bars 18 with a plurality of perforations, as explained on page 4, lines 21-24. This reference does not teach one central elongated recess which extends transversely through the lamination and forms an annular conduit.

The patent to Moore also does not teach the new features of the present invention as defined in claim 13.

The references, either taken singly, or in combination do not anticipate and do not render obvious the present invention because they do not disclose the combined features of a central elongated recess and peripheral recesses, next to the central recess, which give the ends of a periphery a trapezoidal contour. As explained on page 7, lines 15-25 of the disclosure, such

shape gives the laminations a greater stability at high operational speeds of the electrical machine.

The original claims were rejected over the combination of the references under 35 U.S.C. 103(a). The new features of the present invention as defined in claim 13 are not disclosed in the references and can not be derived from them as a matter of obviousness, either taken singly or in combination with one another. In order to arrive at the applicant's invention from the combination of the references, the references have to be fundamentally modified, in particular by including into them the new features of the present invention as now defined in claim 13 and first proposed by the applicant.

However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification. This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

Prior patents are references only for what they clearly disclose or suggest, it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

Definitely, the references did not contain any hint or suggestion for such modifications.

Also, as explained herein above, the present invention provides for the highly advantageous results which can not be accomplished by the constructions disclosed in the references. It is well known that in order to support a valid rejection in the art must also suggest that it would accomplish applicant's results. This was stated by the Patent Office Board of Appeals, in the case *Ex parte Tanaka, Marushma and Takahashi* (174 USPQ 38), as follows:

Claims are not rejected on the ground that it would be obvious to one of ordinary skill in the art to rewire prior art devices in order to accomplish applicant's result, since there is no suggestion in prior art that such a result could be accomplished by so modifying prior art devices.

In view of the above presented remarks and amendments, it is believed that claim 13 should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on claim 13, they share its presumably allowable features, and therefore it is respectfully submitted that they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance; he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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